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Epidurals in labour: What are the advantages and disadvantages?



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Epidurals are a popular choice for pain relief in childbirth. You can read more about epidurals in our Fact Sheet (URL: <http://www.informedhealthonline.org/index.189.en.html>) . An epidural involves injecting a local anaesthetic drug, a pain-relieving drug or a combination of drugs into the space between the bones of the lower back and the spinal cord. This is called the epidural space. Injecting pain medication here can block nerves that are sending pain signals, so that the woman is not aware of pain.

With a low-dose or light epidural, the woman might also be able to keep walking between contractions. This is also sometimes called a mobile epidural. Epidurals can also be used to provide anaesthetic for a caesarean section. The big advantage then is that the woman can avoid a general anaesthetic and participate in the baby's birth. However epidurals also have disadvantages.

To help people better weigh up the pros and cons of epidurals, researchers from the Cochrane Collaboration searched for trials and then analysed their results. The epidural has been well-studied: the researchers found 21 trials altogether, involving over 6,600 women. Most of the women were healthy, having their first baby, and had experienced no major problems with their pregnancy. Women who had preterm babies (born before 36 weeks) or twins were not included. All except one of the trials compared epidurals with pethidine (demerol) or another form of opiate drug for the woman. The epidural doses varied.

The Cochrane researchers came to a series of conclusions. The trials showed that epidurals relieved pain better than the drugs they were compared with. Out of 100 women having epidurals, 96 were satisfied with their pain relief (96%) and less than 1 woman needed extra pain relief (0.8%). In comparison, out of 100 women using other drugs, an average of more than 20 out of 100 needed extra pain relief (23%).

On the other hand there were some disadvantages.

Epidurals slowed down the second stage of labour. This is the later stage of labour where women push the baby out. The average increase was just over 15 minutes.

Women were more likely to need forceps or vacuum extraction to help the baby out, so-called assisted birth or instrumental delivery. Without epidurals the rate of assisted birth was from 10 to 30 out of 100 from hospital to hospital (10% - 30%). With epidurals, the average rate of assisted birth was about 5 out of 100 higher (5%). The chances of caesarean section were not definitely higher.

There were also adverse effects from the drugs. The analysis by the Cochrane researchers showed that almost 17 out of 100 women having epidurals had a drop in blood pressure (17%) and just over 20 out 100 women had a fever (21%). These adverse effects were uncommon in women who did not have epidurals.

Too few of the trials studied longer term outcomes, so it is not clear how often women might have longer term backache or other problems. One trial with less than 400 women in it followed women for more than two years. The women who had had epidurals were not more likely to still have backache from their epidural.

It is not possible to prevent drugs from crossing over the cord and reaching the baby. However epidurals do not have more impact on the baby than other forms of pain-relievers. The main way of measuring whether babies have been affected by pain relief in labour is if their breathing and colour is not as good when they are born. The measurement for this is called the Apgar score. Babies whose mothers had epidurals had low Apgar scores at about the same rate as those babies whose mothers used the other forms of drugs.

Glossary

Cochrane Collaboration

The Cochrane Collaboration is an international network of thousands of researchers and others. They work together in teams called Cochrane Review Groups to answer questions about health care by doing systematic reviews of evidence. To achieve this, the members of the Collaboration have developed systems and methods for systematically finding and analysing the results of trials of health care interventions. The goal of the Cochrane Collaboration is to help patients, health care practitioners and others make more informed decisions about health care. You can read more about the Cochrane Collaboration at their website.

Sources

Anim-Somuah M, Smyth R, Howell C. Epidural versus non-epidural or no analgesia in labour. *Cochrane Database of Systematic Reviews*, Issue 4 of 2005. (Cochrane summary) (URL: <http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD000331/frame.html>)

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Evidence basis of our health information

Our information is based primarily on systematic reviews of the effects of health care. Systematic reviews are necessary to gain an objective picture of health care. In order to do this, a clear question is formulated. Researchers then find all the relevant studies that could answer this question. They then evaluate those studies.

You can find a list of the evidence and other scientific literature on which this information is based at [**www.informedhealthonline.org**](http://www.informedhealthonline.org)

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